

## 1    **ABSTRACT OF THE DISCLOSURE**

2            An array optical subassembly has a substrate, at least one optical active  
3    component, a driver IC, a circuit board and a cover covering the foregoing  
4    elements. The substrate has two opposite surfaces, wherein one surface is  
5    formed by a lens array and the other surface is formed by metal pads, lines and  
6    alignment keys. The optical active component has a source array aligned to the  
7    lens array when the optical active component is connected to the metal pads on  
8    the substrate. The driver IC and the circuit board are also connected to the metal  
9    pads on the substrate to drive the optical active component. The lens array is  
10    directly formed on the substrate so the source array is aligned to the lens array  
11    very well by the alignment keys when the optical active component connected to  
12    the substrate.